INTERMEDIATE FOREST S GRISC TAND DELINEATION NARRATIVE OM SQUARE

The Griscom Square site is located at 1001, 921 and 915 Tyler Avenue as well as 1003 and 1402 Bay Ridge Avenue in Annapolis, MD. The total site is approximately 3.05 acres in size, contains approximately 0.87 acres of existing forest, and is zoned R2. There are no 100-year floodplain, streams, wetlands, or bogs located on site. Three specimen trees and 2 trees which measure 75% of the state champion trees of that species were located on site. See the Specimen Tree List on this sheet for full details. The site is currently un-used but contains two dwellings, one garage, and one shed. Our client, Filli Development Co, Inc. is proposing a twelve lot single family residential subdivision on the site.

EXISTING VEGETATION

The site is comprised of trees, underbrush, groundcover and lawn. Tree sizes range from saplings to specimen tree size. The site is broken out by areas of Lawn, Underbrush and different forest structures (Forest, and Misc. Trees) as shown on the plan view.

FOREST The forest onsite is located in two regions along the southern property line. This is shown on the plan view as Forest 1 (F:1) and Forest 2 (F:2). Tree sizes in F:1 range from saplings to ±17" dbh. Canopy trees in this area consist primarily of sweetgum (Liquidambar styraciflua) with sporadic maples (Acer sp.) and poplars (Liriodendron sp.). Understory trees consist of black cherry (Prunus serotina). The most common tree species in this area is black cherry. Common herbaceous species in this area are English ivy (Hedera helix), bramble (Rubus sp.), multiflora rose (Rosa multiflora) and blueberry (Vaccinium sp.). The shrub layer consists mostly of invasive vines and dead branches. Leaf litter is present and no specimen trees are located within the F:1

The trees located within the F:2 region range in sizes from saplings to ±28" dbh. Canopy trees in this area consist primarily of red maple (Acer rubrum) and sweetgum. The most common tree species in this area is sweetgum. Common herbaceous species in this area are bramble and multiflora rose. The shrub layer consists mostly of invasive vines. Leaf litter is present and there is one specimen tree located within the F:2 region, T-71 a 30" pin oak (Quercus palustris) in good condition.

Trees within the Miscellaneous Tree sections are sporadically scattered and are located in two areas on site. This is shown on the plan as Misc. Trees 1 (M:1) and Misc. Trees 2 (M:2). Trees in area M:1 are primarily part of old landscaping surrounding the existing abandon dwelling. Tree sizes range from ±4" to ±24" dbh. Trees in this area consist primarily of eastern red cedar (Juniperus virginiana), and black cherry. Common herbaceous species in this area are ground ivy, honeysuckle (Lonicera), purple deadnettle (Lamium prupureum), periwinkle (Vinca minor) and viburnum (Viburnum sp.). The shrub layer consists mostly of invasive vines. Minimal leaf litter is present and no specimen trees were located within the M: 1 area.

Trees located within the M:2 section are between the fenced-in lawn portion of the site and area F:2, and the area just north of F:1. Tree sizes range from ± 11 " to ± 20 " dbh. Trees in this area are very sporadic and varied. Common herbaceous species in this area are pokeweed (Phytolacca americana), multifora rose, bramble, wild garlic (Allium ursinum), honeysuckle and ground ivy. The shrub layer consists mostly of invasive vines. Leaf litter is present and no specimen trees are located within the M:2 region.

UNDERBRUSH There are two areas on site which are free of trees and contain only underbush. On the plan view these areas are labeled as Underbrush 1 (U:1) and Underbrush 2 (U:2). The vegetation present in U:1 is primarily pokeweed and ground ivy. The U:1 region is located between F:1 and M:1. The vegetation present in U:2 is primarily sedge and some multiflora rose. This region is located just west of the F:1 region.

The majority of lawn located on site is within rear yards of adjacent properties. Portions of these adjacent properties have been obtained for this subdivision. The lawn is within a fenced-in area and also runs along the back of 3 rear yards. This is shown on the plan view as Lawn. Trees within the Lawn portion consist of large individual trees and range in size from ±10 to specimen tree size. Three specimen trees and the two trees which measure 75% of the state champion trees of that species are located within this region. The specimen trees are: T-39, a 36" pin oak in good condition, T-41, a 32" pin oak in fair condition and T-42 a 37" pin oak in poor condition. The two trees which measure 75% of the state champion trees of that species are: T-78, a 29" Virginia pine in fair condition and T- 79 a 27" Virginia pine in poor condition.

INVASIVE SPECIES
The site contains invasive species. honeysuckle, bittersweet, periwinkle,

The prim

ary invasive species found on site are, adnettle, wild garlic and multiflora rose

, English ivy,

15 <u>1</u>	Morus alha	White mulberry	92	00	Diospyros virginiana	Common persimmon	20
10"	Ulmus pumila	Siberian Elm	91	17	Liquidambar styraciflua	Sweet gum	49
14"	Ulmus pumila	Siberian Elm	90	12	Ulmus pumila	Siberian elm	48
13"	Acre Platanoides	Norway Maple	89	12	Robinia pseudoacacia	Black locust	47
20"	Ulmus pumila	Siberian Elm	88	18	Juniperus virginiana	Eastern redcedar	16b
12	Prunus serotina	Black cherry	87	17	Quercus palustris	Pin oak	16a
19	Juniperus virginiana	Eastern redcedar	86	10	Ulmus pumila	Siberian elm	46
18	Juniperus virginiana	Eastern redcedar	85	20	Catalpa bignonioides	Catalpa	43
21	Juniperus virginiana	Eastern redcedar	84	37	Quercus palustris	Pin oak	42
17	Juniperus virginiana	Eastern redcedar	83	32	Quercus palustris	Pin oak	41
21	Juniperus virginiana	Eastern redcedar	82	23	Quercus palustris	Pin oak	40
24	Juniperus virginiana	Eastern redcedar	81	36	Quercus palustris	Pin oak	39
26	Liquidambar styraciflua	Sweet gum	80	24	Morus alba	White mulberry	38
27	Pinus virginiana	Virginia pine	79	18	Acer saccharinum	Silver maple	37
29	Pinus virginiana	Virginia pine	78	12	Acer platanoides	Norway maple	36
11	Robinia pseudoacacia	Black locust	77	15	Prunus serotina	Black cherry	31
10	Robinia pseudoacacia	Black locust	76	14	Liriodendron tulipifera	Tulip poplar	30
10	Robinia pseudoacacia	Black locust	75	14	Quercus coccinea	Scarlet oak	29
14	Liriodendron tulipifera	Tulip poplar	74b	7	Liquidambar styraciflua	Sweet gum	28
11	Liquidambar styraciflua	Sweet gum	74a	11	Liquidambar styraciflua	Sweet gum	27
16	Liquidambar styraciflua	Sweet gum	74	10	Liquidambar styraciflua	Sweet gum	26
16	Ulmus pumila	Siberian elm	73a	တ	Liquidambar styraciflua	Sweet gum	25
21	Catalpa bignonioides	Catalpa	73	14	Prunus serotina	Black cherry	24
œ	Diospyros virginiana	Common persimmon	72	တ	Liquidambar styraciflua	Sweet gum	23
30	Quercus palustris	Pin oak	71	6	Liquidambar styraciflua	Sweet gum	22
14	Liquidambar styraciflua	Sweet gum	70	15	Prunus serotina	Black cherry	21
œ	Acer rubrum	Red maple	69	14	Prunus serotina	Black cherry	20
12	Acer rubrum	Red maple	68	15	Prunus serotina	Black cherry	19
15	Liquidambar styraciflua	Sweet gum	67	17	Quercus coccinea	Scarlet oak	18
20	Acer rubrum	Red maple	66	18	Ulmus pumila	Siberian elm	16
18	Liquidambar styraciflua	Sweet gum	65	4	llex opaca	American holly	15
24	Liquidambar styraciflua	Sweet gum	63	12	Acer saccharinum	Silver maple	14
16	Acer rubrum	Red maple	62	12	Prunus serotina	Black cherry	3
10	Liquidambar styraciflua	Sweet gum	61	26	Acer rubrum	Red maple	12
24	Liquidambar styraciflua	Sweet gum	60	8	Prunus serotina	Black cherry	11
19	Liquidambar styraciflua	Sweet gum	59	22	Juniperus virginiana	Eastern redcedar	10
17	Prunus serotina	Black cherry	58	17	Prunus serotina	Black cherry	9
20	Prunus serotina	Black cherry	57	30	Prunus serotina	Black cherry	8
16	Acer rubrum	Red maple	56	24	Acer negundo	Boxelder	
16	Acer rubrum	Red maple	55	8	Prunus serotina	Black cherry	6
20	Quercus coccinea	Scarlet oak	54	12	Catalpa bignonioides	Eastern catalpa	თ
21	Liquidambar styraciflua	Sweet gum	53	13	Prunus serotina	Black cherry	4
17	Liquidambar styraciflua	Sweet gum	52	19	Pinus virginiana	Virginia pine	ω
	Scientific name	Common name	Tree #	DBH	Scientific name	Common name	ee #

GRISCOM SQUARE			
SPECIMEN TREE #	LATIN/COMMON NAME	SIZE (DBH)	CONDITION
T39	QUERCUS PALUSTRIS/PIN OAK	36"	GOOD
T41	QUERCUS PALUSTRIS/PIN OAK	32"	FAIR
T42	QUERCUS PALUSTRIS/PIN OAK	37"	POOR
T 71	QUERCUS PALUSTRIS/PIN OAK	30"	GOOD
75% OF STATE CHMP.	LATIN/COMMON NAME	SIZE (DBH)	CONDITION
T78	PINUS VIRGINIANA/VIRGINIA PINE	29"	FAIR
T79	PINUS VIRGINIANA/VIRGINIA PINE	27"	POOR

Forest Conservation Worksheet (Full)

Figure 3.10

FOREST CONSERVATION WORKSHEET

S = 0.73 ac.	S. Reforestation Provided
"	R. Total Planting Requirement R = P + Q
	If Existing Forest Cover (F) is less than the Afforestation Threshold (D), then $\mathbb Q=$ the Afforestation Threshold (D) — the Existing Forest Cover (F)
Q = 0.00 ac.	Q. Total Afforestation Required
P = 0.73 ac.	P. Total Reforestation Required P = L + M - N
N = 0.00 ac	Threshold (E), then M = 2.0 x the Forest to be Cleared (J). N. Credit for Retention Above the Conservation Threshold If the area of forest to be retained (K) is greater than the Conservation Threshold (E), then N = K - E, otherwise, N = 0
	If Existing Forest Cover of Forest to be Retained (kg M = 2.0 x (the Conservation Forest to the fore
M = 0.66 ac.	M. Reforestation for Clearing Below the Conservation Threshold
	 (2) If the Forest to be Retained (K) is less than or equal to the Conservation Threshold (E), then L = area of Forest Above the Conservation Threshold (G) x 0.25
F = 0.0 / qc.	Otherwise, calculate the planting requirement(s) as follows: L. Reforestation for Clearing Above the Conservation Threshold (1) If the Total Area of Forest to be Retained (K) is <u>greater than</u> the Conservation Threshold (E), then L = the Area of Forest to be Cleared (J) X 0.25;
	Planting Requirements If the Total Area of Forest to be Retained (K) is <u>at or above</u> the Breakeven Point (H), no planting is required, and no further calculations are necessary (L=0, M=0, N=0, P=0; O=0. R=0)
J = <u>0.59 ac.</u> K = <u>0.28 ac.</u>	Proposed Forest Clearing J. Total Area of Forest to be Cleared K. Total Area of Forest to be Retained in Forest Conservation Easement K = Existing Forest Cover (F) — Forest to be Cleared (J)
=0.21 ac	 Forest Clearing Permitted Without Mitigation Existing Forest Cover (F) - Break Even Point (H)
	(2) If the area of forest above the Conservation Threshold (G) is equal to 0, then $H = Existing Forest cover (F)$
H =0.66 ac	 Break Even Point H. <u>Break Even Point</u> (Amount of Forest that must be retained so that no mitigation is required) H. the Area of Forest Aabove the Conservation Threshold (G) is <u>greater than</u> 0, then H = (0.2 x the Area of Forest Above the Conservation Threshold (G) + the Conservation Threshold (E)
F = <u>0.87 ac.</u> G = <u>0.26 ac.</u>	 Existing Forest Cover Existing Forest Cover within the Net Tract Area Area of Forest Above Conservation Threshold If the Existing Forest Cover (F) is greater than the Conservation Threshold (E), then G = F - E, otherwise G = 0
D = <u>0.46 ac.</u> E = <u>0.61 ac.</u>	Land Use Category: R-2 High Density Residential D. Afforestation Threshold (Net Tract Area [C] × _15_%) E. Conservation Threshold (Net Tract Area [C] × _20_%)
B = 0.00 ac. C = 3.05 ac.	B. Deductions (100—Year Floodplain)C. Net Tract Area Net Tract Area = Total Tract Area (A) — Deductions (B)
A = 3.05 ac.	Net Tract Area A. Total Tract Area

Dru

DESIGNED: R. MANNIX
ORIG. DATE: 08-31-06
MODIFIED BY/DATE: KLY ~
CADD DWG #: BP12804
DLA PROJECT #: BP12804

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KAMALA A. DULICHAN, ASLA, LEED AP

"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED/REVIEWED BY ME, AND THAT I AM A QUALIFIED PROFESSIONAL UNDER THE REQUIREMENTS OF COMAR 08.19.06.01."

C/O PILLI DEVELOPMENT CO, INC. 197 HANOVER STREET ANNAPOLIS, MARYLAND 21401

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MR. JOHN PILLI

INTERMEDIATE FOREST STAND DELINEATION

GRISCOM SQUARE
CITY OF ANNAPOLIS
PARCELS 761-764

TAX MAP 15G GRID 7 PARCEL
ANNE ARUNDEL COUNTY, MARYLAND DISTRICT 6TH

DATE: DEC. 23, 2014 PROJ. NO: BP12804 SHEET 2

SCALE: 1"=20'